

**American Type Culture Collection**  
**CATALOGUE OF BACTERIA AND PHAGES**  
**Seventeenth edition, 1989**



**Editors:**

Bacteria and Phages

R. Gherna, Ph.D.

P. Pienta, M.S.

Media

R. Cote, M.A.

**Editorial Staff:**

H.D. Hatt, Head, Publications Department  
M.J. Edwards, Assistant Managing Editor  
M. Osvald, Editorial Assistant

N.J. Piper, Senior Editorial Assistant  
C.J. Scamordella, Editorial Assistant

*Photocopies may be made for personal or internal use without charge. More extensive copying is permitted provided a fee of \$1.00 per page is paid to the Copyright Clearance Center, 21 Congress St., Salem, MA 09170, citing ISBN 0-930009-23-1 and the page numbers copied. This consent does not extend to copying for general distribution, promotion, creating new works, or resale.*

Copyright © 1989  
American Type Culture Collection  
12301 Parklawn Drive  
Rockville, Maryland 20852-1776

ISBN: 0-930009-23-1

# BACTERIA

## Types 33 to 40

8333 to 8340 — B.E. Eddy (*Diplococcus pneumoniae*). Pub. Hlth. Repts. (U.S.) 59: 449-468, 485-499, 1944. (Medium 260 37C)

## Types 41 to 59

10341 to 10359 — B.E. Eddy (*Diplococcus pneumoniae*). Pub. Hlth. Repts. (U.S.) 59: 449-468, 485-499, 1944. (Medium 260 37C)

## Types 61 to 73

10361 to 10373 — B.E. Eddy (*Diplococcus pneumoniae*). Pub. Hlth. Repts. (U.S.) 59: 449-468, 485-499, 1944. (Medium 260 37C)

## Type not specified

10015 R.J. Dubos SVI (*Diplococcus pneumoniae*). (Medium 260 37C)

29514 A. Georgopoulos strain "delta" 538 (*Pneumococcus* sp.) — Rudolfsspital, Vienna. (Medium 260 37C)

33400 NCTC 7465 — S.D. Elliott — Rockefeller Inst. Type strain (Int. J. Syst. Bact. 30: 368, 1981). (Medium 260 37C)

35088 W. Wilson. Aortic aneurysm in 7 yr-old boy. Penicillin resistant. (Medium 260 37C)

39322 Brookhaven National Lab 808. Patent strain. (Medium 260 37C)

39937 S.A. Lacks 809 carrying plasmid pLS69. Derived from *Streptococcus pneumoniae* R6. Strain is noncapsulated and reportedly never reverts to encapsulated form. Patent strain. (Medium 1420 37C)

39938 S.A. Lacks 825 carrying plasmid pLS101. Derived from *Streptococcus pneumoniae* R6. Strain is noncapsulated and reportedly never reverts to encapsulated form. Patent strain. (Medium 1420 37C)

## *Streptococcus porcinus* Collins et al.

12390 R. Lancefield group E strain K129 — J. Brown strain certified milk 10. Taxonomy (Syst. Appl. Microbiol. 5: 402-413, 1984). (Medium 260 37C)

12391 R. Lancefield group E strain K131 — J. Brown strain certified milk C3056. Serotype II (G.E. Wessman, personal communication). Taxonomy (Syst. Appl. Microbiol. 5: 402-413, 1984). (Medium 4 37C)

14024 NCTC 9824 — *Streptococcus* Ref. Lab., London. Lancefield Group P. Nord. Vet.-Med. 6: 69-72, 1954. Taxonomy (Syst. Appl. Microbiol. 5: 402-413, 1984). (Medium 4 37C)

21223 Fort Dodge Labs. 59C-2S.H. Lancefield Group E. Hog jowl abscess. Production of a live vaccine for hog jowl abscess disease (U.S. Pat. 3,529,056). Taxonomy (Syst. Appl. Microbiol. 5: 402-413, 1984). (Medium 261 37C)

35647 G.E. Wessman NADC 145A — R.D. Shuman. Swine abscess. Lancefield Group E. Serotype IV (Cornell Vet. 62: 540-568, 1972). Taxonomy (Syst. Appl. Microbiol. 5: 402-413, 1984). (Medium 260 37C)

35648 G.E. Wessman NADC TG9 — R.D. Shuman — C.H. Armstrong. Swine abscess. Lancefield Group E. Serotype V (Cornell Vet. 62: 540-568, 1972). Taxonomy (Syst. Appl. Microbiol. 5: 402-413, 1984). (Medium 260 37C)

35649 G.E. Wessman NADC 0851T — R.D. Shuman. Swine tonsil. Lancefield Group E. Serotype VI (Cornell Vet. 73: 307-313, 1983). Taxonomy (Syst. Appl. Microbiol. 5: 402-413, 1984). (Medium 260 37C)

35650 G.E. Wessman NADC 7585T — R.D. Shuman. Swine tonsil. Lancefield Group E. Serotype VII (Cornell Vet. 73: 307-313, 1983). Taxonomy (Syst. Appl. Microbiol. 5: 402-413, 1984). (Medium 260 37C)

35651 G.E. Wessman NADC 7121A — R.D. Shuman — R.F. Ross. Vaginal secretion of a sow. Lancefield Group E. Serotype VIII (Cornell Vet. 73: 307-313, 1983). Taxonomy (Syst. Appl. Microbiol. 5: 402-413, 1984). (Medium 260 37C)

43138 NCTC 10999 — J. Jelinkova 176. Haemorrhagic swine lymph nodes. Group V (Int. J. Syst. Bact. 24: 434-437, 1974). Type strain (*ibid.*, 35: 224, 1985; Syst. Appl. Microbiol. 5: 402-413, 1984). (Medium 260 37C)

## *Streptococcus pyogenes* Rosenbach

### Lancefield's Group A

4543 H.R. Ordell NYDP 14E. (ATCC 6550; Dochez 5) (Medium 260 37C)

8058 J.H. Brown SH (*Streptococcus alactosus*). Human peritonitis. J. Med. Res. 31: 455, 1915. (Medium 4 37C)

8668 M.G. Sevag C203M. (NCIB 8884; PCI 1307) Sensitive to sulfonamides. Assay of penicillin in body fluids. J. Bact. 43: 411-420, 1942. (Medium 260 37C)

8669 M.G. Sevag C203G. J. Bact. 43: 421-445, 1942. (Medium

4 37C)

8670 M.G. Sevag C203R. J. Bact. 43: 421-445, 1942. (Medium 4 37C)

12202 NCTC 8370 (Type I). Phage host. (Medium 260 37C; use medium 235 for phage propagation)

12203 NCTC 8709 (Type 6 glossy). Phage host. (Medium 235 37C)

12204 NCTC 8306. (Mathews type 25) Phage host. (Medium 260 37C)

12351 R. Lancefield typing strain E14. (Dochez NY 5) Production of erythrogenic toxin (Dick toxin) (Zinsser's Textbook of Bacteriology, Smith & Conant, 10th edition, 1952, p. 254). T-type 8/25 (ATCC Lab). (Medium 4 37C)

14289 Preceptrol® culture. A. Bernheimer C203 S. "Glossy," non-M containing variant of strain C203. (Medium 260 37C)

14918 R.M. Cole. (Kjem's 3807) Lysogenic; carries temperate phage 12/12, lytic on *Streptococcus pyogenes* ATCC 14919. (Medium 260 37C)

14919 R.M. Cole. (Kjem's strain K56) Indicator strain lysed by Kjem's phage strain 12/12 (carried by lysogenic *Streptococcus pyogenes* ATCC 14918). (Medium 235 37C)

19615 Preceptrol® culture. R.G. Wittler strain Bruno — Z. McGee — E. Mortimer. Pharynx of child following episode of sore throat. (Medium 260 37C 5% CO<sub>2</sub>)

21059 S. Koshimura Sv (*Streptococcus hemolyticus*). Human isolate. Produces streptolysin S (Japan. J. Exp. Med. 36: 161-174, 1966). Production of anti-tumor agent (*ibid.*, 36: 175-186, 1966; U.S. Pats. 3,477,914 and 4,328,218). (Medium 261 37C)

21060 S. Koshimura Su (*Streptococcus hemolyticus*). Derived from *S. pyogenes* ATCC 21059. Produces streptolysin S (Japan. J. Exp. Med. 36: 161-174, 1966). Production of anti-tumor agent (*ibid.*, 36: 175-186, 1966; U.S. Pats. 3,477,914 and 4,328,218). (Medium 261 37C)

21547 Chugai Seiyaku Kabushiki Kaisha S-43 (*Streptococcus hemolyticus*) — H. Slade. Human isolate. Production of streptolysin S and O and an anti-tumor agent (U.S. Pat. 3,786,141). (Medium 260 37C)

27762 A.W. Bernheimer C203 U. Derived from *S. pyogenes* strain C203 S. Produces streptolysin O but not S. Streptolysin O studies (J. Bact. 100: 526-527, 1969 and Infect. Immun. 7: 731-734, 1973). (Medium 260 37C)

29218 Sandoz — Hoechst 77/4523. Assay of pleuromutilin derivatives (Antimicrob. Agents Chemother. 7: 507-516, 1975). (Medium 18 broth 26C)

43202 R.L. Wilder strain Wilder's D58 — G. Calandra — R. Lancefield. Experimental induction of polyarthritis in rats (Arthritis Rheum. 25: 1064-1072, 1982; *ibid.*, 26: 560-563, 1442-1451, 1983). (Medium 260 37C)

## Type 1

8671 M.G. Sevag 1685M. J. Bact. 43: 411-420, 1942. (Medium 4 37C)

12344 R. Lancefield typing strain T1 — F. Griffith SF 130. (NCIB 11841) Type strain (Int. J. Syst. Bact. 30: 368, 1980). (Medium 4 37C)

## Type 2

12345 R. Lancefield typing strain T2 — F. Griffith strain BIT. (Medium 260 37C)

12961 R. Lancefield typing strain C649A. Contains R antigen. (Medium 4 37C)

## Type 3

10389 Replacement received from: R. Lancefield D58 (— R. Gillespie [AMC strain Richards]). (ATCC 9959 and 12346) Production of streptolysin O. Proc. Soc. Exp. Biol. Med. 59: 22-25, 1945. (Medium 4 37C)

12383 R. Lancefield typing strain D58X. Variant of strain D58; contains no M antigen. Production of streptolysin O. J. Exp. Med. 108: 329, 1958. (Medium 4 37C)

12384 R. Lancefield typing strain C203. (Dochez 1708) Phage host. (Medium 4, for phage propagation use 235 37C)

21546 H. Okamoto et al. C 203 S (*Streptococcus hemolyticus*) — A. Bernheimer. Produces streptolysin S and O (Kanazawa Kekken Nempo 23: 61-66, 1965). Production of anti-tumor agent (U.S. Pat. 3,810,819). (Medium 261 37C)

## Type 4

12385 R. Lancefield grouping strain J17A4. (A.F. Coburn RPHI) (Medium 260 37C)

# BACTERIA

## *Streptococcus pyogenes* (continued)

- Type 5**  
12347 R. Lancefield typing strain T5B. (F. Griffith strain Franklin) (Medium 260 37C)
- Type 6**  
12348 R. Lancefield typing strain S43. (Dochez and Avery S43 [Texas]) (Medium 260 37C)
- Type 8**  
12349 R. Lancefield typing strain C265 — Schwenker. (F. Griffith NF14 or SFH) (Medium 4 37C)
- Type 9**  
12350 R. Lancefield typing strain T9. (F. Griffith strain Symons) (Medium 4 37C)
- Type 11**  
12352 R. Lancefield typing strain T11. (F. Griffith NE 73T) (Medium 4 37C)  
21548 H. Okamoto *et al.* strain Blackmore (*Streptococcus hemolyticus*) — A. Bernheimer. Produces streptolysin S (Kanazawa Kekken Nempo 23: 61-66, 1965). Production of anti-tumor agent (U.S. Pat. 3,810,819). (Medium 261 37C)
- Type 12**  
11434 R.W. Reed H3. Throat of patient with acute glomerulonephritis. (Medium 260 37C)  
11435 R.W. Reed 35. Throat of patient with acute glomerulonephritis. (Medium 4 37C)  
11436 R.W. Reed 8. Throat of patient with acute glomerulonephritis. (Medium 4 37C)  
12353 R. Lancefield typing strain T12. (F. Griffith SF 42) (Medium 260 37C)
- Type 13**  
12354 R. Lancefield typing strain T13. (ATCC 6553; F. Griffith strain Glover) (Medium 4 37C)
- Type 14**  
12972 R. Lancefield typing strain T14. (Medium 260 37C)  
25663 R.G. Wittler — E. Mortimer P200C0. Human case of streptococcal pharyngitis. Parent strain of *Streptococcus pyogenes* L-Phase variant P20080-L (ATCC 27080). (Medium 610 37C 5% CO<sub>2</sub>)
- Type 15**  
9898 R. Lancefield typing strain T15. (F. Griffith JS 5) (Medium 4 37C)
- Type 17**  
12356 R. Lancefield typing strain J17E. (A. Coburn R9) (Medium 4 37C)
- Type 18**  
12357 R. Lancefield typing strain J17C. (A. Coburn R20) (Medium 4 37C)
- Type 19**  
12358 R. Lancefield typing strain J17D. (A. Coburn R3) (Medium 260 37C)
- Type 22**  
10403 R. Lancefield typing strain T22. (F. Griffith 63T) Produces hyaluronidase. J. Path. Bact. 56: 27, 1944. (Medium 4 37C)
- Type 23**  
8133 R. Lancefield typing strain T23. (F. Griffith strain Barts 102) (Medium 4 37C)
- Type 24**  
10781 R. Lancefield C115 — F. Griffith G54. (Medium 260 37C)  
10782 R. Lancefield typing strain C98. Nose and throat of rheumatic-fever patient. (Medium 4 37C)
- Type 25**  
12359 R. Lancefield typing strain B346op — N.Y. State Dept. Hlth. 41459. (Medium 4 37C)
- Type 26**  
12360 R. Lancefield typing strain J17F. (A. Coburn R17) (Medium 4 37C)
- Type 27**  
8135 R. Lancefield typing strain T27 — F. Griffith 780 Tate. (Medium 4 37C)
- Type 28**  
12962 R. Lancefield typing strain T28. Contains Type 28 M antigen in addition to R antigen. (Medium 4 37C)
- Type 29**  
10096 R. Lancefield typing strain Coggins D23. (Medium 4 37C)
- Type 30**  
12362 R. Lancefield typing strain D24/94/1. (F. Griffith strain Quinn) (Medium 4 37C)
- Type 31**  
12363 R. Lancefield typing strain J137. Tonsils. (Medium 4 37C)
- Type 32**  
12364 R. Lancefield typing strain C121 — Rockefeller Inst. Hosp. 19RS63. (Medium 4 37C)
- Type 33**  
12365 R. Lancefield typing strain C107 — Rockefeller Inst. Hosp. 14RS60. (Medium 4 37C)
- Type 34**  
12366 R. Lancefield typing strain C142. (A. Kuttner B22) (Medium 4 37C)
- Type 35**  
12367 R. Lancefield typing strain C171. (A. Kuttner 24 Berg) (Medium 4 37C)
- Type 36**  
12368 R. Lancefield typing strain C119. (A. Kuttner B35) (Medium 4 37C)
- Type 38**  
12370 R. Lancefield typing strain C94 — Rockefeller Inst. Hosp. 13RS1. (Medium 4 37C)
- Type 39**  
12371 R. Lancefield typing strain C95 — Rockefeller Inst. Hosp. 19RS14. (Medium 260 37C)
- Type 40**  
12372 R. Lancefield typing strain C143 — Rockefeller Inst. Hosp. C143. (Medium 4 37C)
- Type 41**  
12373 R. Lancefield typing strain C101 — Rockefeller Inst. Hosp. 4RS8. (Medium 4 37C)
- Type 42**  
12374 R. Lancefield typing strain C113 — Rockefeller Inst. Hosp. IRS79. (Medium 4 37C)
- Type 43**  
12375 R. Lancefield typing strain C126 — Rockefeller Inst. Hosp. 2RS63. (Medium 4 37C)
- Type 46**  
12377 R. Lancefield typing strain C105 — Rockefeller Inst. Hosp. 20RS14. (Medium 4 37C)
- Type 47**  
12378 R. Lancefield typing strain C744. (F. Griffith SF 13) (Medium 4 37C)
- Type 48**  
12963 R. Lancefield typing strain B403. Contains no R antigen; suitable for preparing Type 48 antiserum. (Medium 260 37C)  
12964 R. Lancefield typing strain C510. Contains R antigen. (Medium 4 37C)
- Type 49**  
13540 R. Lancefield B737. (Wanamaker strain Red Lake 12 Sp. II) (Medium 4 37C)
- Type 50**  
12382 R. Lancefield typing strain B514. (J. Nelson 7353) Comment: Formerly Type B514. (Medium 4 37C)
- Type B447**  
12381 R. Lancefield typing strain B447. (R. Williams strain Corby B6522) (Medium 4 37C)
- Type H105**  
12380 R. Lancefield typing strain H105op. (W. Tillett strain CO) Fibrinolysin production. (Medium 4 37C)
- Type London**  
12379 R. Lancefield strain London. (E. Todd strain London) (Medium 4 37C)
- Streptococcus rattus*** (Coykendall) Coykendall  
19645 R.J. Fitzgerald FA-1. Caries lesion in rat. Type strain (Int. J. Syst. Bact. 27: 28, 1977). J. Dental Res. 39: 923-935, 1960. (Medium 4 37C)
- Streptococcus saccharolyticus*** Farrow *et al.*  
43076 NCDO 2594 — J. Kruze HF 62. Straw bedding. Type strain (Int. J. Syst. Bact. 35: 224, 1985; Syst. Appl. Microbiol. 5: 467-482, 1984). (Medium 260 37C)
- Streptococcus salivarius*** Andrewes and Horder  
7073 New York State Dept. Hlth. 275 (*Streptococcus cardioarthritis*) — J.C. Small. (NCTC 8618) Blood from patient with acute articular rheumatism. Group K. (Medium 261 37C)  
9222 I.C. Gunsalus S20B. (ATCC 9757) Assay of thiamine (J. Biol. Chem. 150: 1-9, 1943). J. Bact. 45: 445, 1943. (Medium 4 37C)